

<p>C&I 505: Technology in Learning and Teaching Summer, 2010 T W R _ 5:00-8:00 July 6 – 29</p>

Office Hours

I don't have an office at ISU, but I will be available.

Daytime - 515-520-1057 800-262-2720

Email - linduska@iastate.edu

Purpose:

Technology is a major mediator between young people and powerful ideas. To avoid being infusing technology to create student-centered learning will be a central focus of the course.

Required Reading:

- No textbook is required for this course. The readings will be handouts, online, or through e-reserve.

Course Description:

This course will acquaint the student with the "why" aspects of applying technology in learning and teaching in the 21st Century. A survey approach is used to model evolving technologies in learning and teaching. Participants will become familiar with relevant literature in instructional technology, implement instructional strategies, develop technical skills, and lead reflective discussions on key topics and concepts.

Course Objectives

As a result of this course participants will be able to:

- Identify current leading-edge work in learning and teaching with technology.
- Compare/contrast learning and teaching with technology to traditional instruction.
- Apply effective instructional design for various interactive media and instructional applications.
- Experience how each application shapes the cognitive, affective, and social dimensions of learning.

- Describe methods for evaluating the effectiveness of teaching and learning with technology.
- Evaluate how innovations such as the Internet, multi-user virtual environments, computer-supported collaborative learning, and virtual realities are impacting the reform of education and distributed learning

Overview of the Course

- 1) Will computer applications enable students to learn in a way that they could before but better?
- 2) Will computer applications enable students to learn in a way that they **could not** before?

We will go beyond just 'doing things differently' to 'doing different things'!!

In this project-based course we will examine various issues in using technology to support teaching and learning. Although educators, policymakers, education researchers, and ordinary citizens have provided a glimpse at the promise of technology, there are key barriers that are preventing the technology from realizing its full potential for enhancing learning.

Educators can use technology to:

- Center learning around the student instead of the classroom
- Focus on the strengths and needs of individual learners
- Make lifelong learning a practical reality
- Enable education to occur in places where there is none, extends resources where there are few, expands the learning day, and opens the learning place.
- Connect people, communities, and resources to support learning
- Add graphics, sound, video, and interaction to give teachers and students multiple paths for understanding make lifelong learning a practical reality
- Acknowledge that technology is a medium today's learners expect to use for expression and communication —the world into which they were born

We won't need a model or template. Rather, we'll develop a flexible framework, much like the wooden frame of a house or the skeletons in our bodies. Its basic shape is clear, strong, and simple, but, as with houses and humans, the same frame

can support a myriad of different architectural or bodily expressions. The structure literally holds up the house, creating spaces for living. We will explore and build these 'flexible frameworks' and discuss their use in K-12 education.

Class Policies

I expect everyone to participate in class discussions -- whether face-to-face or virtual. Basic values for contributing to enjoyable discussions include civility, willingness to take risks, and an appreciation of diversity. No late assignments will be accepted. If serious, extenuating circumstances develop beyond your control, please see me to work out an alternate arrangement.

Accommodations for students:

- Iowa State University complies with the American with Disabilities Act and Section 504 of the Rehabilitation Act. If a student has a documented disability that may affect his/her ability to participate in the course or if he/she requires special accommodations, it is the responsibility of the student to let the instructor(s) know as soon as possible so that the appropriate accommodations can be arranged.

Approach

The class will be project-based using a combination of lecture, discussion (live and/or virtual), and laboratory experiences. There will be "hands on" computer activities illustrating the topics for each class session.

Course Projects - (subject to revision)

Graded assignments are listed below, along with the total points available for each. Assignments not listed in the table below will be counted towards class participation. The assignments marked with a a will be used to assess the Standard X in the Teaching Performance Standards.

Graded Assignments	Points Possible	Technology Standard
Personal Information Statement (Digital Photo)	10	X
Internet Cloud competency	20	X
Visual literacy competency	20	X
Semantic network competency	20	X
Microworlds competency	20	X
Distributed Learning competency	30	X
Final Project	40	X
Final presentation	10	
Class Participation	30	
TOTAL	200	

Final Project - (More specific details will be provided)

Create a **project-based learning** activity that incorporates the use of at least 3 of the application genre that we worked with in class. The project should contain:

- Project Goal(s)
- a written scenario of the problem(s) to be addressed
- a completed **Project Planning Table** describing the separate task and related subtasks necessary resources, projected timeline milestones that identify evidence of task completion
- sample files and templates
- class presentation that directly involves the class in the activity

Grading is based on a percentage of a possible score:

Percent	Range of Points	Grade
100%	200	A+
90 - 99%	180 -	A (-)
80 - 89%	198	B (+/-)
70 - 79%	160 -	C (+/-)
60 - 69%	179	D
> 60%	140 -	F
	159	
	120 -	
	139	
	> 139	